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ABSTRACT

Learning in Retirement (LIR) programs are formal programs predicated on the principle that adult learners are capable of developing, designing, and delivering high-quality instructional programs. Issues associated with teaching computer use to senior citizens were examined in a case study of a small private college's establishment of an LIR institute based on principles of adult learning theory, Malcolm Knowles' theory of andragogy, and the concept of self-directed learning. The curriculum was designed to provide formal classroom instruction to senior citizens with a wide range of life experiences. The aims of the instruction, objectives accomplished, and knowledge and skills to be gained by taking the course were clearly stated at the outset, information was presented in a logical sequence, and individuals' diverse personal goals for taking the course were acknowledged. The following instructional strategies proved very effective with adult self-directed students: recognize that the first example of an attitude or thought has the strongest influence on learners' subsequent behavior; emphasize that the course is just a starting point; use notable individuals in the class as models; standardize the use of terms; keep the level of presentation simple and direct; and use a consistent strategy. (Contains 10 references) (MN)

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Training in Technology for Late Adopters: Learning in Retirement, Computers for Seniors

Terrence R. Redding, Gordon Eisenman, and John Rugolo

Abstract

The notion that everyone is computer literate, or has used a computer is simply not true! More importantly, the number of late adopters, those deciding or being forced to use a computer for the first time, after reaching full maturity is the fastest growing segment of the computer and technology training market. This paper applies notions associated with adult learning theory in a case study that explores issues associated with teaching computer use to seniors. Of particular interest is the importance of peer led instruction, and the shared paradigm of late adopters learning technology. It provides important insight on how to remove learning barriers and dramatically improve the success rate for teaching technology to late adopters.

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Training in Technology for Late Adopters:
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Introduction

"Learning in Retirement" (LIR) as a formal program is predicated on the principle that adult learners are capable of developing, designing, and delivering high quality instructional programs. The concept of LIR is similar to notions associated with "self-directed learning" (SDL). This paper is a case study of a small private college's establishment of a LIR institute using adult learning theory and the concept of SDL. Further, the paper will present a model that can be followed by other organizations in establishing similar programs.

LEARNING IN RETIREMENT INSTITUTE

"Learning in Retirement Institute" (LIR), a national program of peer-led continuing education programs for retirement-aged adults, is increasing in popularity as institutions of higher education adopt this innovative approach. The purpose of a LIR is to offer college level courses on a non-credit basis (there are no tests, and no costs), to provide a forum for intellectual pursuit, an arena for lively discussions, and to encourage the development of new insights and sharing of new ideas. Courses typically cover a wide range of topics such as literature, music, the arts, political and social issues, retirement related issues, health concerns, etc.

In the LIR, older adult learners establish the quality of the instructional programs. In the LIR, older adult learners determine their learning interest and needs and create the instructional materials and programs to meet those needs in an autonomous manner. LIR members run the organization. They write their own by-laws, author and manage their LIR budget, collect annual membership dues, select and run committees, choose and develop curriculum, and secure course instructors.

Colleges that establish LIR can become a member of Elderhostel's Institute Network of LIR programs that share information and programming. The first Learning In Retirement Institute was started in 1988, and today, there are more than 150 such institutes operating in the United States and Canada

LEARNING IN RETIREMENT AND LEARNING THEORY

Adult learning occurs in a wide variety of settings. It can take place in isolation or in a group setting. Groups can be informal or formal, with or without instructors. When learning occurs with an instructor, the instructor can have a wide variation in age and instructional experience.

The participants in a LIR may also vary greatly in age, learning experience, and life experiences in general. For example, age can vary from 55 to over 90 years of age. Given this wide variation in setting, instructor, and participant it may be impossible to standardize an

organizational and instructional approach that increases the success/growth of a LIR in any given effort to expose retired persons to learning. But Learning Theory can inform the process and thus increase the likelihood of success.

Learning Theory concerns itself with the learning process (Reigeluth 1983). Adult learning theory is concerned with the process associated with adult learning .When describing the process by which adults learn it is also necessary to address the conditions associated with the learning. These conditions are influenced by the unique characteristics of the adult learner.

Adult Learning Theory

It is more important to place emphasis on the adult learner, in the application of adult learning theory, than it is to focus on a particular set of theories. Because there is no single theory of education for adults, it is up to the organizer of a learning environment to apply those theories which fit the groups rationale and philosophy concerning the nature of humanity, the nature of reality, and the purpose of the learning. The authors' orientation is on self-directed learning, or learning that occurs voluntarily and in the absence of coercion. Since, learning in retirement is by its very nature an activity engaged in by volunteers, the application of notions concerning self-directed learning is appropriate. It is therefore rewarding to note that our application of learning theory, which reflects this personal orientation, has been successful.

Intentional adult learning occurs most often as a result of change. This change can be external, as in a change in the society at-large, which precipitates a need to acquire new knowledge or additional skills. It can also be the result of an internal change such as the physical changes that occur with aging that cause an individual to desire to change leisure activities or acquire new skills which enable the highest possible quality of life. This paper uses the prior situation and applies adult learning theory to a self-directed learning activity. The activity is gaining knowledge and skill associated with using a personal computer.

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Andragogy

Malcolm Knowles presented a unified theory of adult learning about 25 years ago. While it is not described as an adult learning theory it does provide an interesting emphasis on the adult learner. Knowles said in The Modern Practice of Adult Education: Andragogy Versus Pedagogy (1970):

> Adults have a deep psychological need to be self-directing; their experiential base is a rich resource for learning; their readiness to learn is linked to what they need to know or do in order to fulfill their roles and responsibilities as adults in society; and their orientation to learning is problem centered rather than subject-centered .

That is, adults seek knowledge and skill they can apply to real-life problems they face, whereas kids strive for mastery over given content areas in order to get passing grades in school.

APPLICATION OF SELF-DIRECTED LEARNING

Self-directed learning is defined as a learning activity that is voluntarily engaged in by an adult. It is the adult's ability to choose whether or not to engage in the learning activity that is the determinant as to whether the learning activity is self-directed. This is not to say that a self-directed learner cannot participate in mandated educational activities. However, the organizers of learning in retirement groups should consider the self-directed nature of adult learners.

Why Adults Engage in Self-Directed Learning

Developmental changes that affect the way adults think about themselves and the world around them occur gradually. The desire to respond to change, therefore, can also occur gradually and the decision to respond to the change may be made over an extended period of time. This extended period of time permits the adult to formulate ways to address change that can be unique to the individual, in terms of motivation and incentive, but which ultimately can be addressed in a collective learning environment. Self-directed learning does not have to occur in isolation but can and does often occur in social settings and just as easily in a formal classroom setting.

Individuals that respond to change as it occurs can be distinguished separate from those

that wait but ultimately adjust to change later. It is not the purpose of this paper to answer questions concerning the distinction between these two diverse groups. It is important, however, to recognize that the two groups exist. Within the context of LIR, and computer training, those that respond to change as it occurs can be labeled "early adopters." They learned along with society as it incorporated computers into the workplace and every day life. Their learning task in keeping up with change is therefore incremental and is taken in small learning steps. Along the way they learn skills that are later devalued by society as society determines "best" approach through universal acceptance of alternatives. Early computer programming languages, operating systems, and computer hardware are casualties of this process. But the early adopter, keeping pace with change, manages the small learning steps and gains a historical perspective of computer use over time that is a paradigm only understood by those that have taken the early adopter path. Early adopters use phases, think in ways, and approach problems differently than those not yet caught up in the computer age. Conversations and explanations of computer knowledge assume a common paradigm of understanding that the late adopters appear have little hope of understanding.

The learning task for the late adopters (for lack of a better label) is very different from that of the early adopters. The late adopters, for a wide variety of reasons, lack the common paradigm and have difficulty understanding the early adopters enthusiasm for a particular computer "operating systems" or why they insist on using words with no meaning (such as RAM, ROM, DOS, Input and output device, baud, bit, resolution, etc.) when discussing the simplest question concerning computers. Their learning problem, once they commit to learning about computers is one of catching up. They will avoid the false steps of the early adopters because they will not spend time learning about things that society ultimately discarded (failed programming languages, operating systems, and hardware platforms) but they also will not understand references to them by early adopters who may become their mentor or teacher. But it is the late adopters that want to learning about computers in a LIR.

Therefore, successful LIR instructors in the area of rapidly changing technology should understand not only why adults choose to learn, but also some of the barriers to learning that may have frustrated the LIR participant in the past. These barriers include a lack of a common paradigm between student and instructor, age of instructor, age of fellow students, lighting, and physical access to the classroom.

The Organization

The aim of this adult learning theory case study is to
enable a LIR and those responsible for organizing the group to successfully create a learning environment in which optimum learning in retirement can occur.

Langenbach, in his section on self-directed learning (1988), points out that most instruction is a top-down process and that instructors often perceive themselves as creating access to knowledge. This notion of the importance of the instructor or organizer in facilitating of the transfer of knowledge can be a limiting factor. This may especially be true for older adults.

Unlike conventional K-12 instruction, where society has a major role of insuring that the access and content are appropriate, older adults are able to address access and content issues through their autonomy of action. However, that does not mean that educational activities prepared for adults need not concern themselves with access or content.

A Formal Plan of Organization is Required

At Palm Beach Atlantic College we followed the organizational plan and guidelines presented below to structure our approach to developing a LIR. Other models may also be useful. Like all organizations, LIR requires a plan to be consistently successful. At its foundation should be an explicit philosophy and stated organizational purpose. It should be organized to empower the members to control their organization. A stable structure that insures continuity of purpose and direction from month to month and year to year, with regular elections and a decision making process, should be put in place. Regular meetings should be routinely conducted. Ideally, the business portion of the meeting should be minimized and the important goal of learning through scheduled presentations should occur at each meeting. Members should have a sense of responsibility to regularly make informal presentations on topics of interest to the entire LIR.

In the case of formal adult learning, where the acquisition of specific knowledge and skills are desired, a formal plan of instruction is an asset. In order to facilitate this discussion, the authors will address the application of adult learning theory as demonstrated by such a formal plan of instruction. Formal plans for conducting a course of instruction are called curriculum.

This curriculum entitled "Learning in Retirement: Computers for Seniors," was prepared for instructing individuals with a wide range of life experiences, from 55 to 90 years of age, in a formal classroom setting (Rugolo, 1995). It should be noted that the average success rate for senior students (those that enroll and complete a course) is 40 to 50 per cent (Redding, 1989, 1995). Most attrition is associated with individuals that simply attend a few sessions, and then drop out. A formal study of why there is a high drop-out rate for senior students has not been identified. Rugolo's informal investigations indicate that senior students have difficulty accepting instruction from much younger instructors who appear to lack understanding of senior students. He further reports that senior students are uncomfortable in a group of younger students who seem to communicate and learn at a different pace than the senior students. Contributing to the uneasiness senior students feel in a traditional classroom setting is an indication that younger

students tend to be impatient with the questions and needs of the senior students (Rugolo, 1995). The referenced curriculum, which is an application of adult learning theory, has a demonstrated success rate of nearly 100 per cent. The authors believe this is true primarily because the LIR adults respond favorably to being "educated as adults," but more importantly because their instructor shares their common paradigm in terms of life experience. The discussion of the process associated with the cited curriculum will shed light on what it means to be educated like older adults in a cohort group.

The curriculum begins with a clear statement as to the aims of the instruction and the objectives to be accomplished. This is further amplified by stating the knowledge and skills to be gained
by taking the course. Because adults have the ability to "vote with their feet," it is important that they understand what will be required in a course, how that requirement matches their needs and the logic behind the presentation of information. It is also important to recognize that the older adult students will have had widely varying experiences that either lend to, or distract from their learning experience. Verduin's Instructional Model, one of the
few that has been specifically developed to address adult instruction, indicates that two important procedures should be followed at the beginning of instruction. 1) Assessing the beginning behavior of adult students and 2) defining student and class goals to be achieved in the learning effort (Long 1983).

Classroom Environment

In the beginning session the instructor accomplishes a number of things which are designed to improve the success rate of the class participants. First, the instructor outlines his own experience in deciding to learn about computers, with very limited knowledge of what was involved. Then he has the class acknowledge, that within the participating students there is a wide variation in age and experience. In this way the instructor is able to formally acknowledge the uniqueness of each learner.

The range of age in any given class can and has extended from mid 40's to mid 90's. A wide range of student's previous exposure to the subject of computers has also been encountered.

The fact that present within the class may be individuals more technically qualified than the instructor is used to encourage the students to think of the course as one in which students can also participate, explain and teach. The instructor also adds humor to the process of learning by encouraging the students to identify and catch the mistakes made by the instructor. This encourages a relaxed but progressive atmosphere within which the instruction can proceed. It has been the instructors experience that this allows the students to develop a sense of

ownership/belonging for the class and makes the overall environment less threatening. This is especially true for those students that have never taken a course as an adult. Developing a sense of ownership/belonging in the students also encourages the more knowledgeable students to help those students that appear more intimidated by the material presented in class.

Student Goals

Adult students work best when their individual goals are clearly understood. The student is encouraged to state their individual goal and the instructor commit himself to seeing that they are successful at achieving their goal. It has been observed by the authors that, after having the adult students state their individual commitment to a particular goal publicly, they are less likely to drop the course as long as satisfactory progress is being made.

INSTRUCTIONAL STRATEGIES

The curriculum incorporates specific instructional strategies that are designed to address the unique nature of adult self-directed students. They are briefly discussed below:

1. **"Reference A",** the first example of an attitude or thought has the strongest influence on the subsequent behavior of the learner. Therefore, it is important that the instructor display a positive attitude about the subject material and the students ability to learn and use it.

2. **The course is just a starting point.** Consistently stress the importance of continuing to learn about each facet of computer use. The LIR computer courses are designed as starting points. During training it is not possible for the instructor to know where the student will be inclined to apply him or herself. Turn the students on, not off.

3. **Modeling; use notable individuals in the class.** In addition to the instructors personal story of how he came to understand and use computers, it is important to identify other members of the class that also have positive stories to share. Recognize their special area of interest to the class. Enthusiasm rubs off.

4. **Standardize the use of terms.** The best way to say something is the way it is "stated" in the reference material. Building a solid vocabulary and the ability to communicate using the correct terms insures less frustration and more success in the learning environment and thus over the material which the student must gain competence.

5. **Keep the level of presentation simple and direct.** Often it is better simply to repeat than to find a "new

way" to say something. While the student may nod in agreement at the "new way", students are often simply too embarrassed to pursue a subject that the instructor has implied was fully explained.

6. **Use a consistent strategy.** With the wide variety of learners that are encountered in this curriculum and the compressed time frame, it is essential that a solid strategy be employed in order to maximize learning. Provide a framework and then explain the specific elements needed to understand the framework.

Strategy number six recognizes limitations associated with a too humanistic approach to adult education. However, I would categorize this approach to applying adult learning theory as less mechanistic then most. It views objectives as providing a framework, but not as cages that must be filled in order to declare the learning activity a success.

THE STUDENT

Insuring the Student and Instructor have the same Goals

The goal of most adult learners is to gain specific skill or knowledge. The authors believe that the instructor should enter into a verbal (social) contract with the students. The instructor should commit to the student's learning goal, while at the same time causing them to commit to becoming fully competent and proficient in the use of their personal computers. A reciprocal relationship will then exist which will cause the instructor and the student to work harder at achieving their common goal.

In the referenced curriculum all material presented in class is designed to accomplish the goal of acquiring the knowledge and skills to use application software such as word processors and telecommunications software. As part of the learning contract the instructor indicates that he will be available to assist the students in the future should they need help with a particular software application or computer problem.

Removing Student Anxiety

Many of the LIR students will not have had a recent school experience, or have had experience in mixed age groups, and are usually cautious about attempting this learning activity. They are especially apprehensive about their study habits and ability to take tests. Practical examples are used throughout the course to ensure that each student comes away from each class knowing that they are now able to do something new.

The instructor demonstrates a continuing commitment to the progress of the students throughout the course by providing student outlines for each session which make it clear which

material covered is important and eases the burden of taking notes. This helps the students focus on the content and aides them in pacing the instructor and not missing key pieces of information. The instructor uses student outlines as a teaching outline during the class. At the end of a class period it can be used during the summary and review. This allows the instructor to verify that students have understood the content and also to double check to insure that he has not over looked a critical area of information.

If a student misses a class the student outline provides him or her with a detailed list of areas to be reviewed. It is critically important that the pace of the instruction continue and not stop in response to students that are late, or fail to attend each session. Take time before or after class, but not during class to help a student catch-up.

Encourage students to ask questions. Insuring individual questions can be asked and answered in turn allows the pace of instruction to contribute to the students sense of well-being and conviction that they will be successful. After all, it is upon success that success is built.

SUMMARY

While we are not comfortable in saying that the process of adult education I have outlined above is an application of Andragogy, we do believe that elements of Andragogy are embedded within this curriculum for self-directed students and that it is an appropriate approach to build success in a learning in retirement group. This reflects the Catherine T. MacArthur School of Continuing Education's philosophy of adult education and appears to work well with older adults that are interested in acquiring the skills necessary to use personal computers. This philosophy recognize the individual participants. It focuses on their strength and builds strengths in them that addresses their weaknesses. And it incorporates a practical tone in the instruction and instructional content.

Further, it follows a logical sequence while presenting information to insure a complete framework for understanding the material is built. It focuses on what the student actually needs to know. And, it recognizes that each individual in the computer course has a personal reason for being there.

One additional point should be made. There is no substitute for enthusiasm. The organizer of a learning in retirement group must be enthusiastic if his or her group is to be successful. Couple enthusiasm with a sincere desire to see that each student is successful at achieving their individual goals and most students will be successful. We consider it useful to know something about adult learning theory and a practical understanding of how it is used in the classroom. With this knowledge it is easier to understand the students and the manner in which they should be presented learning material.

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